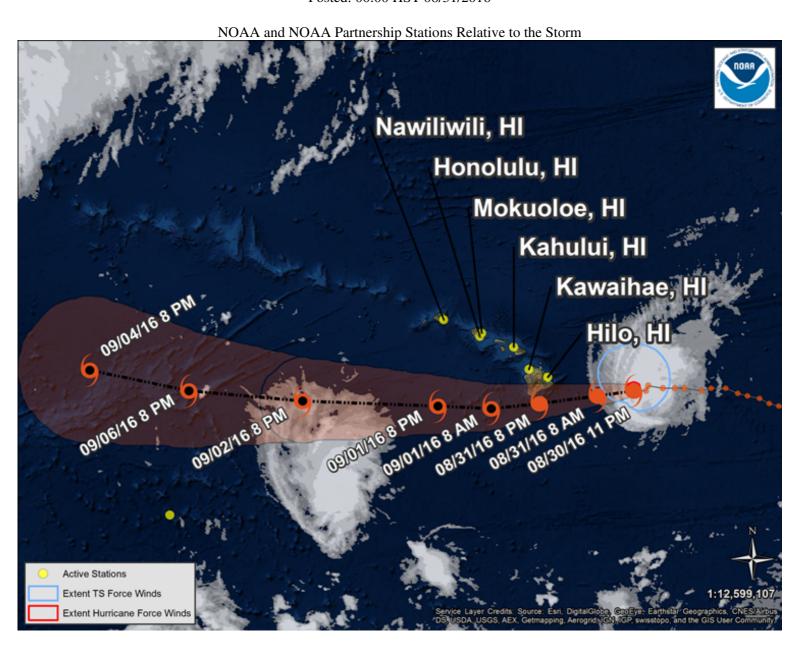




Hurricane MADELINE QuickLook Posted: 00:00 HST 08/31/2016



### Storm Analysis

As of 8/31/2016 00:00 HST, water levels across the Hawaiian Islands are slightly elevated and range between 0.3 and 0.8 feet above normal tide levels. Winds are generally 15 knots or less with slightly higher gusts to 25 knots on the windward facing shores of the Island of Hawai'i and Maui. Barometric pressure has not yet begun to fall across the Hawaiian Islands.

Water Level and Meteorological plots available below are updated automatically. A line denoting <u>Mean Higher High Water</u> (MHHW) is displayed to provide an approximate indication of when flooding inundation may occur.

For additional data, please see the <u>Center for Operational Oceanographic Products & Services</u> website. For more information or archived products and reports, please see the <u>Storm QuickLook</u> Homepage.

Analyst:ADM

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### SELECT CENTRAL PACIFIC HURRICANE CENTER ADVISORY INFORMATION:

HURRICANE MADELINE ADVISORY NUMBER 20 NWS CENTRAL PACIFIC HURRICANE CENTER HONOLULU HI 1100 PM HST TUE AUG 30 2016

...CATEGORY ONE MADELINE TRACKING WEST TOWARDS HAWAII...

WATCHES AND WARNINGS

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CHANGES WITH THIS ADVISORY:

None.

### SUMMARY OF WATCHES AND WARNINGS IN EFFECT:

A Hurricane Warning is in effect for...

\* Hawaii County

A Tropical Storm Watch is in effect for...

\* Maui County including the islands of Maui, Molokai, Lanai and Kahoolawe

A Hurricane Warning means that hurricane conditions are expected somewhere within the warning area. Preparations to protect life and property should be rushed to completion.

A Tropical Storm Watch means that tropical storm conditions are possible within the watch area within 48 hours. In this case, conditions are possible within 24 to 36 hours.

Interests elsewhere in the main Hawaiian Islands should monitor the progress of Madeline.

For storm information specific to your area, please monitor products issued by the National Weather Service office in Honolulu Hawaii.

#### **DISCUSSION AND 48-HOUR OUTLOOK**

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At 1100 PM HST, the center of Hurricane Madeline was located ABOUT 235 MI E OF HILO HAWAII and ABOUT 440 MI ESE OF HONOLULU HAWAII. Madeline is moving toward the west near 12 mph and this motion is expected to continue for the next couple of days.

Maximum sustained winds are near 90 mph with higher gusts. Steady weakening is forecast during the next 48 hours.

Hurricane-force winds extend outward up to 25 miles from the center and tropical-storm-force winds extend outward up to 125 miles.

The estimated minimum central pressure is 980 mb.

#### HAZARDS AFFECTING LAND

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WIND: Hurricane conditions are expected to develop over Hawaii County as early as late Wednesday and continue into early Thursday. Tropical storm conditions are possible over Maui County, including the islands of Maui Molokai Lanai and Kahoolawe, late Wednesday into early Thursday.

SURF: Swells generated by Madeline are expected to build from east to west across the Hawaiian Islands through tonight, possibly becoming damaging along east facing shorelines of Hawaii County and eastern portions of the Island of Maui Wednesday into Thursday.

RAIN: Heavy rains associated with Madeline are expected to reach Hawaii County on Wednesday, and may impact other Hawaiian Islands later Wednesday through Thursday. Madeline is expected to produce total rain accumulations of 5 to 10 inches across Hawaii County, with isolated maximum amounts near 15 inches, especially over windward portions. Madeline may produce total rainfall of 1 to 3 inches, with isolated maximum amounts up to 4 inches, across Maui County. This rainfall may lead to dangerous flash floods and mudslides.

STORM SURGE: Depending on the track of Madeline, the combination of storm surge and tides could cause normally dry areas near the coast to become flooded. The water could reach 1 to 3 feet above ground if peak surge were to coincide with high tide. The surge would be accompanied by large damaging surf and can vary over short distances.

### **NEXT ADVISORY**

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Next intermediate advisory at 200 AM HST. Next complete advisory at 500 AM HST.

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Forecaster Birchard

For the purpose of timely release, data contained within this QuickLook have undergone a "limited" NOS Quality Assurance/Control; however, the data have not yet undergone final verification. All data subject to NOS verification.

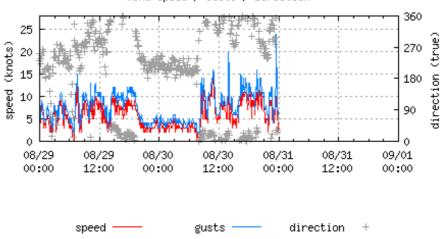
Jump to: Hilo, Hilo Bay, Kuhio Bay - Water Level, Hilo, Hilo Bay, Kuhio Bay - Winds, Hilo, Hilo Bay, Kuhio Bay - Barometric, Kawaihae - Water Level, Kawaihae - Winds, Kawaihae - Barometric, Kahului, Kahului Harbor - Water Level, Kahului, Kahului Harbor - Water Level, Mokuoloe - Water Level, Mokuoloe - Water Level, Honolulu - Winds, Honolulu - Barometric, Nawiliwili - Water Level, Nawiliwili - Winds, Nawiliwili - Barometric

### NOAA/NOS/CO-OPS 1617760 Hilo, Hilo Bay, Kuhio Bay, HI

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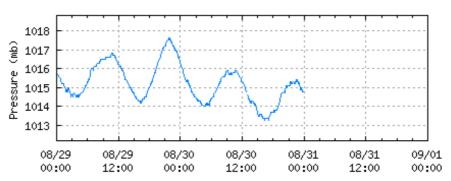
Last Observed Sample: 08/30/2016 23:48 (HST). Data relative to MHHW Observed: -0.50 ft. Predicted: -1.17 ft. Residual: 0.67 ft. Historical Maximum Water Level: Jan 20 1981, 1.37 ft. Next High Tide: 08/31/2016 02:19 (HST), -0.52 ft.

### NOAA/NOS/CO-OPS 1617760 Hilo, Hilo Bay, Kuhio Bay, HI Wind Speed / Gusts / Direction



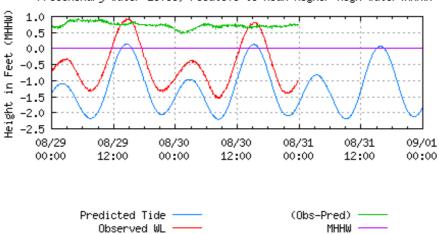
Last Observed Sample: 08/30/2016 23:48 (HST) Wind Speed: 2 knots Gusts: 6 knots Direction: 65° T

#### NOAA/NOS/CO-OPS 1617760 Hilo, Hilo Bay, Kuhio Bay, HI Barometric Pressure



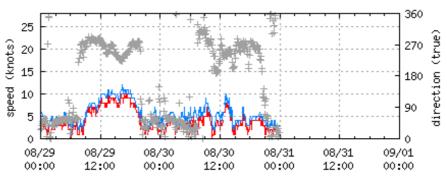
barometric pressure ——
Last Observed Sample: 08/30/2016 23:48 (HST)
Barometric Pressure: 1014.8 mb

### NOAA/NOS/CO-OPS <u>1617433 Kawaihae, HI</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 08/30/2016 23:48 (HST). Data relative to MHHW Observed: -1.00 ft. Predicted: -1.74 ft. Residual: 0.74 ft. Historical Maximum Water Level: Dec 13 2008, 1.22 ft. Next High Tide: 08/31/2016 03:25 (HST), -0.83 ft.

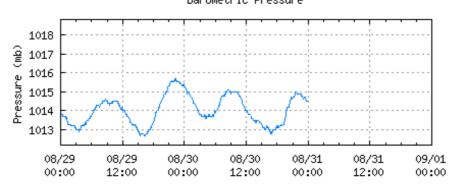
### NOAA/NOS/CO-OPS <u>1617433 Kawaihae, HI</u> Wind Speed / Gusts / Direction



speed gusts direction + Last Observed Sample: 08/30/2016 23:48 (HST)

Wind Speed: 2 knots Gusts: 3 knots Direction: 17° T

#### NOAA/NOS/CO-OPS <u>1617433 Kawaihae</u>, <u>HI</u> Barometric Pressure

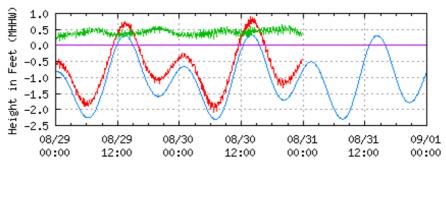


barometric pressure ----

Last Observed Sample: 08/30/2016 23:48 (HST)

Barometric Pressure: 1014.5 mb

### NOAA/NOS/CO-OPS 1615680 Kahului, Kahului Harbor, HI Preliminary Water Level, relative to Mean Higher High Water(MHHW)



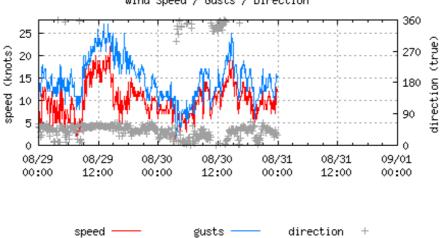
Observed WL — MHHW ——
Last Observed Sample: 08/30/2016 23:48 (HST). Data relative to MHHW
Observed: -0.43 ft. Predicted: -0.81 ft. Residual: 0.38 ft.

(Obs-Pred)

Historical Maximum Water Level: Dec 20 1968, 1.23 ft. Next High Tide: 08/31/2016 01:34 (HST), -0.51 ft.

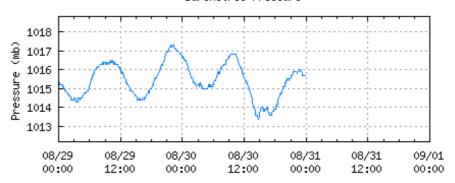
Predicted Tide

### NOAA/NOS/CO-OPS 1615680 Kahului, Kahului Harbor, HI Wind Speed / Gusts / Direction



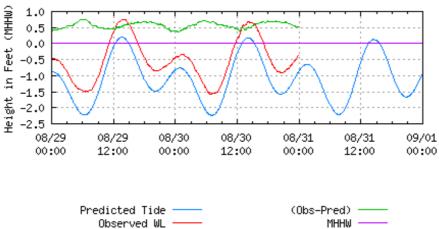
Last Observed Sample: 08/30/2016 23:48 (HST) Wind Speed: 12 knots Gusts: 15 knots Direction: 30° T

### NOAA/NOS/CO-OPS 1615680 Kahului, Kahului Harbor, HI Barometric Pressure



barometric pressure ——
Last Observed Sample: 08/30/2016 23:48 (HST)
Barometric Pressure: 1015.7 mb

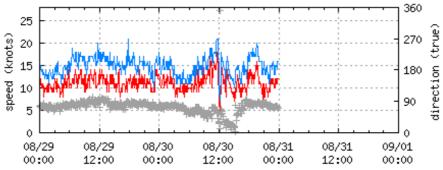
# NOAA/NOS/CO-OPS 1612480 Mokuoloe, HI Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 08/30/2016 23:48 (HST). Data relative to MHHW Observed: -0.37 ft. Predicted: -0.90 ft. Residual: 0.53 ft. Historical Maximum Water Level: Jan 8 1974, 1.46 ft.

Next High Tide:  $08/31/2016\ 01:35\ (HST),\ -0.65\ ft.$ 

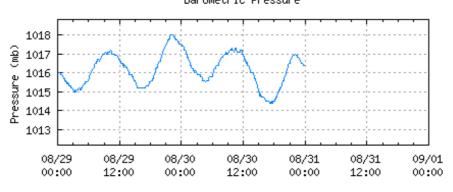
## NOAA/NOS/CO-OPS 1612480 Mokuoloe, HI Wind Speed / Gusts / Direction



speed gusts direction Last Observed Sample: 08/30/2016 23:48 (HST)

Wind Speed: 12 knots Gusts: 16 knots Direction: 71° T

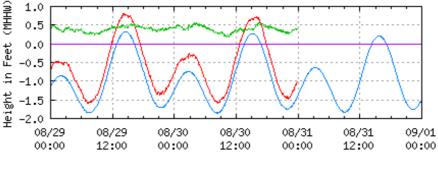
#### NOAA/NOS/CO-OPS 1612480 Mokuoloe, HI Barometric Pressure



barometric pressure

Last Observed Sample: 08/30/2016 23:48 (HST) Barometric Pressure: 1016.4 mb

### NOAA/NOS/CO-OPS <u>1612340 Honolulu, HI</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)

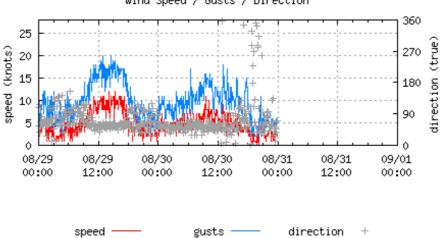


Predicted Tide (Obs-Pred) (Obs-Pred) (MHHW)

Next High Tide: 08/31/2016 03:23 (HST), -0.63 ft.

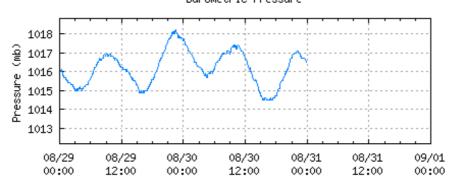
Last Observed Sample: 08/30/2016 23:48 (HST). Data relative to MHHW Observed: -1.02 ft. Predicted: -1.42 ft. Residual: 0.40 ft. Historical Maximum Water Level: Feb 14 1967, 1.49 ft.

### NOAA/NOS/CO-OPS <u>1612340 Honolulu, HI</u> Wind Speed / Gusts / Direction



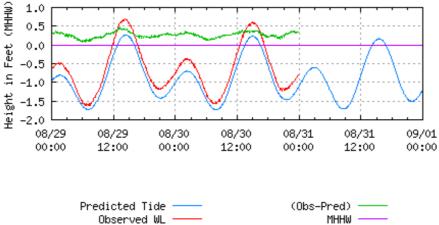
Last Observed Sample: 08/30/2016 23:48 (HST) Wind Speed: 2 knots Gusts: 4 knots Direction: 70° T

### NOAA/NOS/CO-OPS 1612340 Honolulu, HI Barometric Pressure

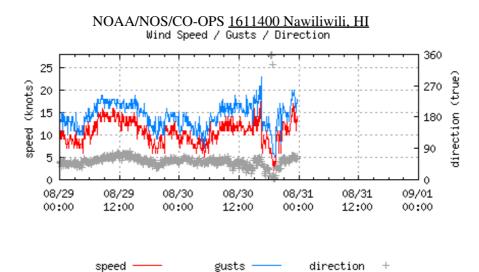


barometric pressure Last Observed Sample: 08/30/2016 23:48 (HST) Barometric Pressure: 1016.5 mb

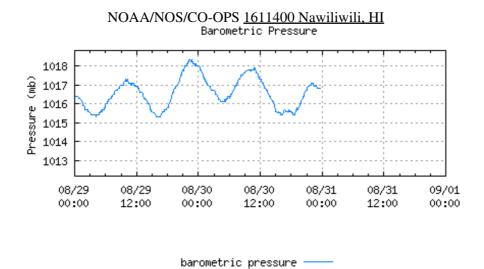
### NOAA/NOS/CO-OPS 1611400 Nawiliwili, HI Preliminary Water Level, relative to Mean Higher High Water(MHHW) 1.0 0.5 0.0



Last Observed Sample: 08/30/2016 23:48 (HST). Data relative to MHHW Observed: -0.80 ft. Predicted: -1.14 ft. Residual: 0.34 ft. Historical Maximum Water Level: Sep 11 1992, 3.15 ft. Next High Tide: 08/31/2016 02:59 (HST), -0.60 ft.



Last Observed Sample: 08/30/2016 23:48 (HST) Wind Speed: 13 knots Gusts: 18 knots Direction: 60° T



Last Observed Sample: 08/30/2016 23:48 (HST)
Barometric Pressure: 1016.8 mb

Latest Water Level Observations on MHHW

Station ID	Station Name	Date/Time	Observed Water Level	Predicted Tide	Residual Water Level	24 Hour Maximum Storm Tide
1617760	Hilo, Hilo Bay, Kuhio Bay, HI	08/30/2016 23:48 (HST)	-0.50 ft	-1.17 ft	0.67 ft	0.88 ft
1617433	Kawaihae, HI	08/30/2016 23:48 (HST)	-1.00 ft	-1.74 ft	0.74 ft	0.82 ft
1615680	Kahului, Kahului Harbor, HI	08/30/2016 23:48 (HST)	-0.43 ft	-0.81 ft	0.38 ft	0.91 ft
1612480	Mokuoloe, HI	08/30/2016 23:48 (HST)	-0.37 ft	-0.90 ft	0.53 ft	0.69 ft
1612340	Honolulu, HI	08/30/2016 23:48 (HST)	-1.02 ft	-1.42 ft	0.40 ft	0.72 ft
1611400	Nawiliwili, HI	08/30/2016 23:48 (HST)	-0.80 ft	-1.14 ft	0.34 ft	0.61 ft

Center for Operational Oceanographic Products & Services (CO-OPS) | National Ocean Service (NOS) National Oceanic and Atmospheric Administration | U.S. Department of Commerce